

Explanatory Note

These suggested provisions have been prepared for use by municipalities having to comply with the requirements of **Section 60.3(d)*** of the National Flood Insurance Program regulations. Your municipal attorney and engineer should be consulted in preparing the necessary ordinance or ordinances.

In using these provisions, certain things must be understood and kept in mind:

- These provisions cannot be adopted verbatim. Every municipality making use of these provisions will have to make some choices and modifications, depending upon the kinds of flood hazard districts and information contained in its Flood Insurance Study, and the community's own particular circumstances and objectives or policy.
- These provisions alone will not meet all the Flood Insurance Program requirements. They are zoning provisions only, and must be used in combination with other kinds of regulations (i.e., Uniform Statewide Building Code and subdivision regulations) in order to meet all of the Program requirements.
- These provisions are not classical "model" floodplain management regulations. With few exceptions, they have been prepared only with the intention of meeting the minimum requirements of the National Flood Insurance Program. Any municipality that may be interested could do considerably more concerning the regulation of development in flood-prone districts.

More stringent local requirements are encouraged, and would be supported by both the Federal Emergency Management Agency and the Division of Soil and Water Conservation, Department of Conservation and Recreation. The more restrictive local regulations would be recognized as taking precedence over the federal minimum guidelines. The needs, circumstances, and objectives are so diverse that the development of a single ordinance or set of provisions for use by all is literally impossible.

If there are any questions concerning these suggested provisions or concerning the National Flood Insurance Program, the Division of Soil and Water Conservation (Department of Conservation and Recreation) (804) 371-6135 or the Philadelphia Regional Office (215) 931-5514 should be contacted without hesitation.

** Section 60.3(d) details what the community must do after the Federal Insurance Administrator has provided a notice of final base flood elevations within zones on the community's Flood Insurance Rate Map and has provided data from which the community must designate its regulated floodway.*

ORDINANCE NO. ____

AN ORDINANCE AMENDING ORDINANCE NO. ____, THE ZONING ORDINANCE OF Name of Municipality, VIRGINIA, BY ESTABLISHING FLOODPLAIN DISTRICTS, BY REQUIRING THE ISSUANCE OF PERMITS FOR DEVELOPMENT, AND BY PROVIDING FACTORS AND CONDITIONS FOR VARIANCES TO THE TERMS OF THE ORDINANCES.

BE IT ENACTED AND ORDAINED BY THE Name of Governing Body, Name of Municipality, Virginia, as follows:

ARTICLE I - GENERAL PROVISIONS

Section 1.1 - Purpose

The purpose of these provisions is to prevent the loss of life and property, the creation of health and safety hazards, the disruption of commerce and governmental services, the extraordinary and unnecessary expenditure of public funds for flood protection and relief, and the impairment of the tax base by:

- A. Regulating uses, activities, and development which, alone or in combination with other existing or future uses, activities, and development, will cause unacceptable increases in flood heights, velocities, and frequencies.
- B. Restricting or prohibiting certain uses, activities, and development from locating within districts subject to flooding.
- C. Requiring all those uses, activities, and developments that do occur in flood-prone districts to be protected and/or flood-proofed against flooding and flood damage.
- D. Protecting individuals from buying land and structures which are unsuited for intended purposes because of flood hazards.

Section 1.2 - Applicability

These provisions shall apply to all lands within the jurisdiction of Name of Municipality and identified as being in the 100-year floodplain by the Federal Insurance Administration.

Section 1.3 - Compliance and Liability

- A. No land shall hereafter be developed and no structure shall be located, relocated, constructed, reconstructed, enlarged, or structurally altered except in full compliance with the terms and provisions of this ordinance and any other applicable ordinances and regulations which apply to uses within the jurisdiction of this ordinance.

- B. The degree of flood protection sought by the provisions of this ordinance is considered reasonable for regulatory purposes and is based on acceptable engineering methods of study. Larger floods may occur on rare occasions. Flood heights may be increased by man-made or natural causes, such as ice jams and bridge openings restricted by debris. This ordinance does not imply that districts outside the floodplain district, or that land uses permitted within such district will be free from flooding or flood damages.
- C. This ordinance shall not create liability on the part of Name of Municipality or any officer or employee thereof for any flood damages that result from reliance on this ordinance or any administrative decision lawfully made thereunder.

Section 1.4 - Abrogation and Greater Restrictions

This ordinance supersedes any ordinance currently in effect in flood-prone districts. However, any underlying ordinance shall remain in full force and effect to the extent that its provisions are more restrictive than this ordinance.

Section 1.5 - Severability

If any section, subsection, paragraph, sentence, clause, or phrase of this ordinance shall be declared invalid for any reason whatever, such decision shall not affect the remaining portions of this ordinance. The remaining portions shall remain in full force and effect; and for this purpose, the provisions of this ordinance are hereby declared to be severable.

ARTICLE II - DEFINITIONS

- A. Base Flood/One-Hundred Year Flood - A flood that, on the average, is likely to occur once every 100 years (i.e., that has a one (1) percent chance of occurring each year, although the flood may occur in any year).
- B. Base Flood Elevation (BFE) - The Federal Emergency Management Agency designated 100 year water surface elevation. (NOTE: ADD "ONE OR MORE FEET" TO END OF SENTENCE TO OBTAIN A GREATER LEVEL OF FLOOD PROTECTION.)
- C. Basement - Any area of the building having its floor subgrade (below ground level) on all sides.
- D. Board of Zoning Appeals - The board appointed to review appeals made by individuals with regard to decisions of the Zoning Administrator in the interpretation of this ordinance.
- E. Development - Any man-made change to improved or unimproved real estate, including, but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials.
- F. Floodplain - Any land area susceptible to being inundated by water from any source.

- G. Floodway - The channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height.
- H. Freeboard - A factor of safety usually expressed in feet above a flood level for purposes of floodplain management.
- I. Lowest Floor - The lowest floor of the lowest enclosed area (including basement).
- J. Recreational Vehicle - A vehicle which is:
 - (a) built on a single chassis;
 - (b) 400 square feet or less when measured at the largest horizontal projection;
 - (c) designed to be self-propelled or permanently towable by a light duty truck; and
 - (d) designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational camping, travel, or seasonal use.
- K. Substantial Damage - Damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred.
- L. Substantial Improvement - Any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before the "start of construction" of the improvement. This term includes structures which have incurred "substantial damage" regardless of the actual repair work performed. The term does not, however, include either: (1) any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions or (2) any alteration of a "historic structure", provided that the alteration will not preclude the structures continued designation as a "historic structure".

ARTICLE III - ESTABLISHMENT OF ZONING DISTRICTS

Section 3.1 - Description of Districts

A. Basis of Districts

The various floodplain districts shall include areas subject to inundation by waters of the one hundred (100)-year flood. The basis for the delineation of these districts shall be the Flood Insurance Study (FIS) for Name of Municipality prepared by the Federal Emergency Management Agency, Federal Insurance Administration, dated _____, as amended. *(NOTE: Those communities that had FIS prepared by the Department of Housing and Urban Development should delete FEMA and add HUD)*

Note:

Subsections 1 and 2 are for use where a floodway has been delineated and separate floodway and flood-fringe districts will be established.

1. The Floodway District is delineated, for purposes of this ordinance, using the criterion that certain areas within the floodplain must be capable of carrying the waters of the one hundred (100)-year flood without increasing the water surface elevation of that flood more than one (1) foot at any point. The areas included in this District are specifically defined in Table ____ of the above-referenced Flood Insurance Study and shown on the accompanying Flood Boundary and Floodway Map or Flood Insurance Rate Map.
2. The Flood-Fringe District shall be that area of the one hundred (100)-year floodplain not included in the Floodway District. The basis for the outermost boundary of the District shall be the one hundred (100)-year flood elevations contained in the flood profiles of the above-referenced Flood Insurance Study and as shown on the accompanying Flood Boundary and Floodway Map or Flood Insurance Rate Map.
3. The Approximated Floodplain District shall be that floodplain area for which no detailed flood profiles or elevations are provided, but where a one hundred (100)-year floodplain boundary has been approximated. Such areas are shown as Zone A on the maps accompanying the Flood Insurance Study. For these areas, the one hundred (100)-year flood elevations and floodway information from federal, state, and other acceptable sources shall be used, when available. Where the specific one hundred (100)-year flood elevation cannot be determined for this area using other sources of data, such as the U. S. Army Corps of Engineers Floodplain Information Reports, U. S. Geological Survey Flood-Prone Quadrangles, etc., then the applicant for the proposed use, development and/or activity shall determine this elevation in accordance with hydrologic and hydraulic engineering techniques. Hydrologic and hydraulic analyses shall be undertaken only by professional engineers or others of demonstrated qualifications, who shall certify that the technical methods used correctly reflect currently-accepted technical concepts. Studies, analyses, computations, etc., shall be submitted in sufficient detail to allow a thorough review by the Name of Municipality.

B. Overlay Concept

1. The Floodplain Districts described above shall be overlays to the existing underlying districts as shown on the Official Zoning Ordinance Map, and as such, the provisions for the floodplain districts shall serve as a supplement to the underlying district provisions.
2. Any conflict between the provisions or requirements of the Floodplain Districts and those of any underlying district, the more restrictive provisions and/or those pertaining to the floodplain districts shall apply.
3. In the event any provision concerning a Floodplain District is declared inapplicable as a result of any legislative or administrative actions or judicial decision, the basic underlying provisions shall remain applicable.

Section 3.2 - Official Zoning Map

The boundaries of the Floodplain Districts are established as shown on the Flood Boundary and Floodway Map and/or Flood Insurance Rate Map which is declared to be a part of this ordinance and which shall be kept on file at the Name of Municipality offices.

Section 3.3 - District Boundary Changes

The delineation of any of the Floodplain Districts may be revised by the Name of Name of Governing Body where natural or man-made changes have occurred and/or where more detailed studies have been conducted or undertaken by the U. S. Army Corps of Engineers or other qualified agency, or an individual documents the need for such change. However, prior to any such change, approval must be obtained from the Federal Insurance Administration.

Section 3.4 - Interpretation of District Boundaries

Initial interpretations of the boundaries of the Floodplain Districts shall be made by the Zoning Officer. Should a dispute arise concerning the boundaries of any of the Districts, the Board of Zoning Appeals shall make the necessary determination. The person questioning or contesting the location of the District boundary shall be given a reasonable opportunity to present his case to the Board and to submit his own technical evidence if he so desires.

ARTICLE IV - DISTRICT PROVISIONS

Section 4.1 - General Provisions

A. Permit Requirement

All uses, activities, and development occurring within any floodplain district shall be undertaken only upon the issuance of a zoning permit. Such development shall be undertaken only in strict compliance with the provisions of the Ordinance and with all other applicable codes and ordinances, such as the Virginia Uniform Statewide Building Code and the Name of Municipality Subdivision Regulations. Prior to the issuance of any such permit, the Zoning Officer shall require all applications to include compliance with all applicable state and federal laws. Under no circumstances shall any use, activity, and/or development adversely affect the capacity of the channels or floodway of any watercourse, drainage ditch, or any other drainage facility or system.

B. Alteration or Relocation of Watercourse

Prior to any proposed alteration or relocation of any channels or of any watercourse, stream, etc., within this jurisdiction a permit shall be obtained from the U. S. Corps of Engineers, the Virginia Department of Environmental Quality, and the Virginia Marine Resources Commission (a joint permit application is available from any of these organizations). Furthermore, notification of the proposal shall be given by the applicant to all affected adjacent jurisdictions,

the Department of Conservation and Recreation (Division of Soil and Water Conservation) and the Federal Insurance Administration.

C. Drainage Facilities

Storm drainage facilities shall be designed to convey the flow of storm water runoff in a safe and efficient manner. The system shall insure proper drainage along streets, and provide positive drainage away from buildings. The system shall also be designed to prevent the discharge of excess runoff onto adjacent properties.

D. Site Plans and Permit Applications

All applications for development in the floodplain district and all building permits issued for the floodplain shall incorporate the following information:

1. For structures to be elevated, the elevation of the lowest floor (including basement).
2. For structures to be floodproofed (non-residential only), the elevation to which the structure will be floodproofed.
3. The elevation of the one hundred (100)-year flood.
4. Topographic information showing existing and proposed ground elevations.

E. Recreational Vehicles

Recreational vehicles placed on sites either:

- (I) Be on the site for fewer than 180 consecutive days, be fully licensed and ready for highway use, or
- (ii) Meet the permit requirements for placement and the elevation and anchoring requirements for manufactured homes as contained in the Uniform Statewide Building Code.

A recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions.

Section 4.2 - Floodway District

In the Floodway District no encroachments, including fill, new construction, substantial improvements, or other development shall be permitted unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed encroachment would not result in any increase in the one hundred (100)-year flood elevation.

NOTE: THE FOLLOWING SECTION IS OPTIONAL

Section 4.3 - Permitted Uses in the Floodway District

The following uses and activities are permitted provided that they are in compliance with the provisions of the underlying area and are not prohibited by any other ordinance and provided that they do not require structures, fill, or storage of materials and equipment:

- A. Agricultural uses, such as general farming, pasture, grazing, outdoor plant nurseries, horticulture, truck farming, forestry, sod farming, and wild crop harvesting.*
- B. Public and private recreational uses and activities, such as parks, day camps, picnic grounds, golf courses, boat launching and swimming areas, horseback riding and hiking trails, wildlife and nature preserves, game farms, fish hatcheries, trap and skeet game ranges, and hunting and fishing areas.*
- C. Accessory residential uses, such as yard areas, gardens, play areas, and pervious loading areas.*
- D. Accessory industrial and commercial uses, such as yard areas, pervious parking and loading areas, airport landing strips, etc.*

Section 4.4 - Flood-fringe and Approximated Floodplain Districts

In the Flood-Fringe and Approximated Floodplain Districts, the development and/or use of land shall be permitted in accordance with the regulations of the underlying area provided that all such uses, activities, and/or development shall be undertaken in strict compliance with the floodproofing and related provisions contained in the Virginia Uniform Statewide Building Code and all other applicable codes and ordinances.

Within the Approximated Floodplain District, all new subdivision proposals and other purposed developments (including proposals for manufactured home parks and subdivisions) greater than 50 lots or five (5) acres, whichever is the lesser, include within such proposals base flood elevation data.

The applicant shall also delineate a floodway area based on the requirement that all existing and future development not increase the one hundred (100)-year flood elevation more than one foot at any one point. The engineering principle--equal reduction of conveyance--shall be used to make the determination of increased flood heights.

Within the floodway area delineated by the applicant, the provisions of Section 4.2 shall apply.

ARTICLE V - VARIANCES: FACTORS TO BE CONSIDERED

In passing upon applications for Variances, the Board of Zoning Appeals shall satisfy all relevant factors and procedures specified in other sections of the zoning ordinance and consider the following additional factors:

- A. The danger to life and property due to increased flood heights or velocities caused by encroachments. No variance shall be granted for any proposed use, development, or activity

within any Floodway District that will cause any increase in the one hundred (100)-year flood elevation.

- B. The danger that materials may be swept on to other lands or downstream to the injury of others.
- C. The proposed water supply and sanitation systems and the ability of these systems to prevent disease, contamination, and unsanitary conditions.
- D. The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owners.
- E. The importance of the services provided by the proposed facility to the community.
- F. The requirements of the facility for a waterfront location.
- G. The availability of alternative locations not subject to flooding for the proposed use.
- H. The compatibility of the proposed use with existing development and development anticipated in the foreseeable future.
- I. The relationship of the proposed use to the comprehensive plan and floodplain management program for the area.
- J. The safety of access by ordinary and emergency vehicles to the property in time of flood.
- K. The expected heights, velocity, duration, rate of rise , and sediment transport of the flood waters expected at the site.
- L. The repair or rehabilitation of historic structures upon a determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as a historic structure and the variance is the minimum necessary to preserve the historic character and design of the structure.
- M. Such other factors which are relevant to the purposes of this ordinance.

The Board of Zoning Appeals may refer any application and accompanying documentation pertaining to any request for a variance to any engineer or other qualified person or agency for technical assistance in evaluating the proposed project in relation to flood heights and velocities, and the adequacy of the plans for flood protection and other related matters.

Variances shall be issued only after the Board of Zoning Appeals has determined that the granting of such will not result in (a) unacceptable or prohibited increases in flood heights, (b) additional threats to public safety, 8 extraordinary public expense; and will not (d) create nuisances, (e) cause fraud or victimization of the public, or (f) conflict with local laws or ordinances.

Variances shall be issued only after the Board of Zoning Appeals has determined that variance will be the minimum required to provide relief from any hardship to the applicant.

The Board of Zoning Appeals shall notify the applicant for a variance, in writing, that the issuance of a variance to construct a structure below the one hundred (100)-year flood elevation (a) increases the risks to life and property and (b) will result in increased premium rates for flood insurance.

A record shall be maintained of the above notification as well as all variance actions, including justification for the issuance of the variances. Any variances which are issued shall be noted in the annual or biennial report submitted to the Federal Insurance Administrator.

ARTICLE VI - EXISTING STRUCTURES IN FLOODPLAIN DISTRICTS

A structure or use of a structure or premises which lawfully existed before the enactment of these provisions, but which is not in conformity with these provisions, may be continued subject to the following conditions:

- A. Existing structures in the Floodway District shall not be expanded or enlarged unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed expansion would not result in any increase in the one hundred (100)-year flood elevation.
- B. Any modifications, alteration, repair, reconstruction, or improvement of any kind to a structure and/or use located in any floodplain area to an extent or amount of less than fifty (50) percent of its market value, elevation and/or flood-proofing should be considered to the greatest extent possible.
- C. The modification, alteration, repair, reconstruction, or improvement of any kind to a structure and/or use, regardless of its locations in a floodplain area, to an extent or amount of fifty (50) percent or more of its market value shall be undertaken only in full compliance with the provisions of this ordinance and the Virginia Uniform Statewide Building Code.

ARTICLE VII - ENACTMENT

ENACTED AND ORDAINED THIS ____ DAY OF _____, 19___. This ordinance shall become effective upon passage.

Signed

Attested